

I claim:

1. A method of communicating with a built-in sensor, the sensor receiving a supply voltage externally via a voltage supply line and outputting an output signal with successive signal pulses, the method which comprises the steps of:

placing a sensor into a detection mode;

externally modulating a supply voltage on a voltage supply line connected to the sensor;

analyzing the modulated supply voltage received in the sensor with regard to a fulfillment of a predetermined criterion stored in the sensor; and

interpreting the received modulated supply voltage as an external communication signal if the criterion is fulfilled.

2. The method according to claim 1, which comprises outputting with the sensor an output signal having successive logic L and H signal pulses.

3. The method according to claim 1, wherein the sensor is a rotational speed sensor and the method further comprises:

supplying the rotational speed sensor externally via a two-wire current interface;

comparing the modulated supply voltage received in the rotational speed sensor with an associated sensor current; and

interpreting the received modulated supply voltage as an external communication signal if a negative resistance characteristic is ascertained.

4. The method according to claim 3, which comprises switching the rotational speed sensor into a communication mode if a negative resistance characteristic is ascertained over a predetermined number of cycles of the sensor output signal of respective L and H signal pulses.

5. The method according to claim 4, which comprises, in the communication mode, interpreting each modulation of the supply voltage having a predetermined signal duration and signal magnitude as an external communication signal.

6. The method according to claim 5, wherein a logic "1" corresponds to an H pulse with 2/3 period duration and an L pulse with 1/3 period duration.

7. The method according to claim 5, wherein a logic "0" corresponds to an H pulse with 1/3 period duration and an L pulse with 2/3 period duration.

8. The method according to claim 4, which comprises, in the communication mode, outputting with the rotational speed sensor communication signals on the voltage supply line to an externally accessible terminal.

9. The method according to claim 1, which comprises maintaining the supply voltage substantially constant in a case of no communication.

10. The method according to claim 4, wherein the rotational speed sensor is connected to and can be supplied externally via a three-wire voltage interface.

11. The method according to claim 10, wherein, in the communication mode, outputting with the rotational speed sensor communication signals on the voltage output line to an externally accessible terminal point.

12. The method according to claim 1, wherein the sensor is a rotational speed sensor.

13. The method according to claim 1, wherein the sensor is a rotational speed sensor built into a motor vehicle and the method comprises measuring a rotary speed of a motor vehicle component.

14. The method according to claim 1, wherein the sensor is built into a motor vehicle and is externally accessible via the voltage supply line.

15. The method according to claim 1, wherein the sensor is built into a household appliance and is externally accessible via the voltage supply line.

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